REMARKS

Applicants wish to thank Examiner Lish for indicating allowability of Claims 4, 5, 7, 9, 12 and 13 and for allowing Claims 14 and 15.

Applicants respectfully request reconsideration of the application, as amended, in view of the following remarks.

The present invention as set forth in **amended Claim 1** relates to a confinement matrix for the storage or incineration of at least one long-life radioactive element, comprising:

at least one crystalline boron compound of a rhombohedral structure comprising said at least one long-life radioactive element.

Amended Claim 8 relates to a method for preparing a confinement matrix for at least one long life radioactive element, comprising: mixing a powder of said at least one long-life radioactive element or a powder of at least one compound of said at least one long-life element with a boron powder or a boron precursor, to obtain a powder mixture; and

then producing a hot reaction of the powder mixture at a temperature of 800 to 1500°C and sintering the powders obtained;

thereby obtaining said confinement matrix which comprises at least one crystalline compound of a rhombohedral structure in the crystalline network into which said at least one long-life radioactive element is inserted.

In contrast, Horie et al (US 5,082,603) fail to disclose or suggest confinement matrix for the storage or incineration of at least one long-life radioactive element or a method for preparing a confinement matrix for at least one long life radioactive element.

Horie et al disclose a method of treatment of a high-level radioactive waste containing platinum groups elements (i.e., Pd, Rh, Ru), in order to recover these elements, which are useful but rare in natural resources (Horie et al, column 2, lines 19-24).

Horie et al recover the platinum group elements from the high-level radioactive waste as follows:

- adding boron or a boron compound to a calcined material of the radioactive waste in a amount of 0.5 to 10% by weight;

- heating the resultant mixture at a temperature of about 1000°C or above under a reduction condition; to melt the mixture and to alloy platinum group elements present in the calcined material with boron;

- recovering a layer of the resultant platinum group element alloys from a layer of residual oxides through sedimentation;

- solidifying the layer of the residual oxides to form a volume-reduced high-level radioactive solidified waste.

In other words, after melting the mixture, based on the capacity of boron compound to alloy with platinum elements, there is a splitting up of the mixture into two separate phases:

- a first phase consisting of platinum group element alloys with boron compound;

- a second phase consisting of residual waste (i.e., radioactive waste) (Horie et al, column 3, lines 9-13, column 5, lines 1-5, and figure 1).

However, there is **no disclosure or suggestion that the boron compound forms an alloy with radioactive elements (especially long-life radioactive elements) to form a confinement matrix.** Therefore, the Examiners' assertion according to which the melt of Horie et al is solidified to yield an alloy layer comprising waste that is alloyed to the boron, is erroneous.

Further, platinum is not a long-life radioactive element and, as a consequence, the phase consisting of platinum group element alloys with boron compound cannot be considered as a confinement matrix which comprises at least one crystalline boron compound of a rhombohedral structure comprising said at least one long-life radioactive element.

Further, considering that Horie et al disclose that the adding of a boron compound to a radioactive waste, following the heating, causes the phase separation of the mixture into a first phase consisting of platinum group element alloys with boron compound and a second phase consisting of residual waste (i.e., radioactive waste) (Horie et al, column 3, lines 9-13, column 5, lines 1-5, and figure 1), there is no motivation for a person of ordinary skill in the art to use boron compounds to make a confinement matrix for long-life radioactive elements.

Therefore, the rejection of Claims 1-3 and 6 under 35 U.S.C. § 102(b) as anticipated by Horie et al (US 5,082,603) and the rejection of Claims 8, 10 and 11 under 35 U.S.C. § 103(a) as being unpatentable over Horie et al (US 5,082,603) are believed to be unsustainable as the present invention is neither anticipated nor obvious and withdrawal of these rejections is respectfully requested.

The rejection of Claims 9-12 under 35 U.S.C. § 112, second paragraph, is obviated by the amendment of Claim 9.

This application presents allowable subject matter, and the Examiner is kindly requested to pass it to issue. Should the Examiner have any questions regarding the claims or otherwise wish to discuss this case, he is kindly invited to contact Applicants' below-signed representative, who would be happy to provide any assistance deemed necessary in speeding this application to allowance.

Respectfully submitted,

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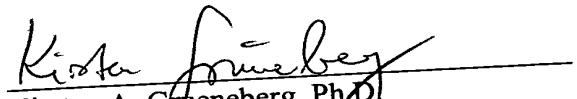

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BASIS FOR THE AMENDMENT

The claims have been amended to correct minor informalities.

Claim 9 has been amended as supported by Claim 9 as originally filed.

No new matter is believed to have been added by entry of this amendment. Entry and favorable reconsideration are respectfully requested.

Upon entry of this amendment Claims 1-15 will now be active in this application.